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A Pavilion on a Private Estate

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A PAVILION ON A PRIVATE ESTATE

BY

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THESIS

FOR

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IN

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THIS IS TO CERTIFY THAT THE THESIS PREPARED UNDER MY SUPERVISION BY

ARTHUR BARRETT DUNHAM

ENTITLED A PAVILION ON A PRIVATE ESTATE

IS APPROVED BY ME AS FULFILLING THIS PART OF THE REQUIREMENTS FOR THE

DEGREE OF BACHELOR OF SCIENCE IN ARCHITECTURE

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A PAVILION ON A PRIVATE ESTATE.

:: PROBLEM ::

The owner of a large estate, which is situated upon the shore of a lake, desires a pavilion, or casino, which is to be the chief feature of a formal garden upon the shore. Expense is not a consideration, but beauty and privacy are the prime factors.

The building should provide means of entertainment, and, for this purpose, there should be a small ball-room capable of accomodating about fifty couples. A dining room and a lounging room are also desirable. The pavilion should occupy such a position that the outlook is the best, at the same time preserving its private character.

:: DESCRIPTION ::

The position chosen for the building was upon the slope down to the lake, and in the hollow of the hill, giving it the appearance of nestling in the woods, but at the same time commanding a good view of the lake and the gardens which lead from it, down to the lake. The pavilion is below the level of the ground upon which the residence stands, and a stairway, behind, gently ascends to the general level. The grounds surrounding the pavilion were arranged in the form of terraced gardens, each with its feature of a fountain, pond or cascade. The terraces gave fine oppor-

tunity for emphasizing the rustic character of the design, by means of grottoes containing statues of mythological beings.

In the building, the ball-room, being the largest of the required rooms, was given the most prominent place in the plan. Arcades lead from it to a loggia, which protects the front of the building from the southern exposure, and, on the opposite side, to a terrace which faces the stairway, leading to the residence above.

The dining-room was placed to the west of the ball-room, with the serving pantry on the rear, so as to be as inconspicuous as possible. The kitchen is in the basement below the serving pantry.

On the opposite side from the dining-room is the lounging room, with the stairs to the second floor immediately behind it. There are numerous openings to the outside, giving an airy effect to the interior and permitting an enjoyment of the beauties of nature, without.

In the second floor, an opening into the upper part of the ball-room furnishes a position for the orchestra, and, on the opposite end, a similar opening gives spectators a view of the dancers below. These two end rooms are connected by a terrace over the loggia.

:: STYLE ::

In this design it was desirable to give a rustic character to the building, without making it mean, or lacking

in detail. As a part of a large estate, it might very easily become too elaborate; but from a study of Italian casinos it is evident that such a building is most effective when secondary to its natural surroundings. Therefore, the pavilion has been kept simple in outline, beauty being gained by nice proportions, so that, instead of competing with nature, it would be in keeping with its surroundings and would become a part of the landscape. This simplicity likewise emphasizes the privacy of its character.

However simple the general effect, there must be somewhat of gaiety in the design and this was attempted by a careful selection of ornament. This accounts for the detail around the windows, and the vases upon the balustrade, which form a wave line, expressive of gaiety, with certain spots of interest. The rustic theme was again introduced in the Bacchus heads in the spandrels of the arcade, and the Pan figures on the end pavilions of the second story, decorating parts of the building whose piers are rusticated.

The composition, as a whole, can be unified by some common units of detail and proportion between the residence and the pavilion, but there must be differences of treatment due to the differences of location and uses to which the two buildings are put. On the casino, the detail may be may be of the same general character as upon the residence, but it must be simplified. The two buildings are tied by the main avenues of trees, and these also serve to bound the gardens and to separate the cultivated portion from the

natural woods. The figures of Pan and Bacchus were introduced, not as a mere copying of similar existing examples, but as emblems expressive of the worship of nature.

Stucco was chosen as the material with which the exterior should be finished, both on account of the character of its surface, and because of the freedom of detail which it admits. Such a building might well have been designed in stone, advantage being taken of the change in color and texture of the various stones; but in this design it was not necessary to do this, as it was thought that the ornament, itself, would give enough interest to the surface.

The steps and terraces are made of stone. There is a difference in treatment between the building, itself, and the terraces, the latter being heavier, with plain bands taking the place of cornices. The coloring of the stone of the terraces and grottoes by moss and weathering will prove picturesque in this case, and will accent the difference between the building and its surroundings. Further color is added by the basins in the gardens. The contrast between the white spray of the fountains, and the deep colors in the quieter water, which reflects the balustrades and the trees, gives life to the scene.

:: CONSTRUCTION ::

Assuming that the best construction is desired, the walls of this building would be built of brick or hollow tile, because of their impenetrability to heat, and their fireproof qualities. The stucco is applied directly to the exterior, and the interior is plastered, first being furred, to insure dryness. It would be unnecessary to make such a building entirely fireproof. Situated as it is, alone in a large garden, its tile roof amply protects it from fire from the outside, and the danger from an internal source is small, being confined to the kitchen. The floor construction of the serving pantry and the room above it might well be fireproof, tile arches being used.

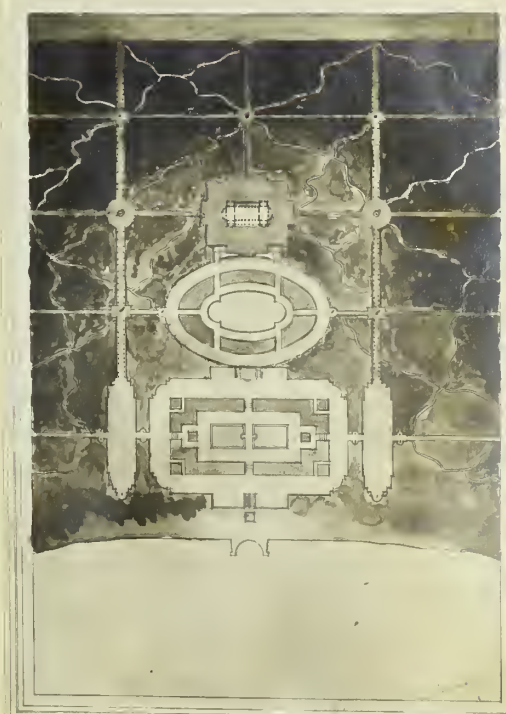
The roof is supported by wooden rafters, with a collar beam thrown across, to insure stiffness. Metal lath, hung from the rafters, forms the furring for the vaulted ceiling of the ball-room. This metal lath is easily adjusted, and lends itself to the modeling of the ceiling. The floors of the second story are supported by wooden joists, run the narrow way of the room.

The kitchen is the only excavated part of the building. As before stated, the serving pantry has a tile floor construction. A concrete floor, having wooden sleepers imbedded in it, extends over the rest of the ground floor. The wooden flooring is put over this, giving a firm, dry floor. In the loggia and the front part of the dining-room and lounging room, the wooden floor is omitted, and mosaic is applied over the concrete floor. The footings, throughout, are simple step-footings of concrete.

It has been the intention in constructing the loggia,

to avoid the necessity of any visible tie-rods, which mar the beauty of so many Italian casinos. To do this, the outside arches were made the depth of two columns, instead of one, thereby gaining additional weight, so that the reaction of the horizontal thrust of the vault and of the weight of the material above the arch, will lie in a line inside the base of the outer column. The vault should be of light construction, preferably reinforced concrete, and the terrace above should be of the same material.

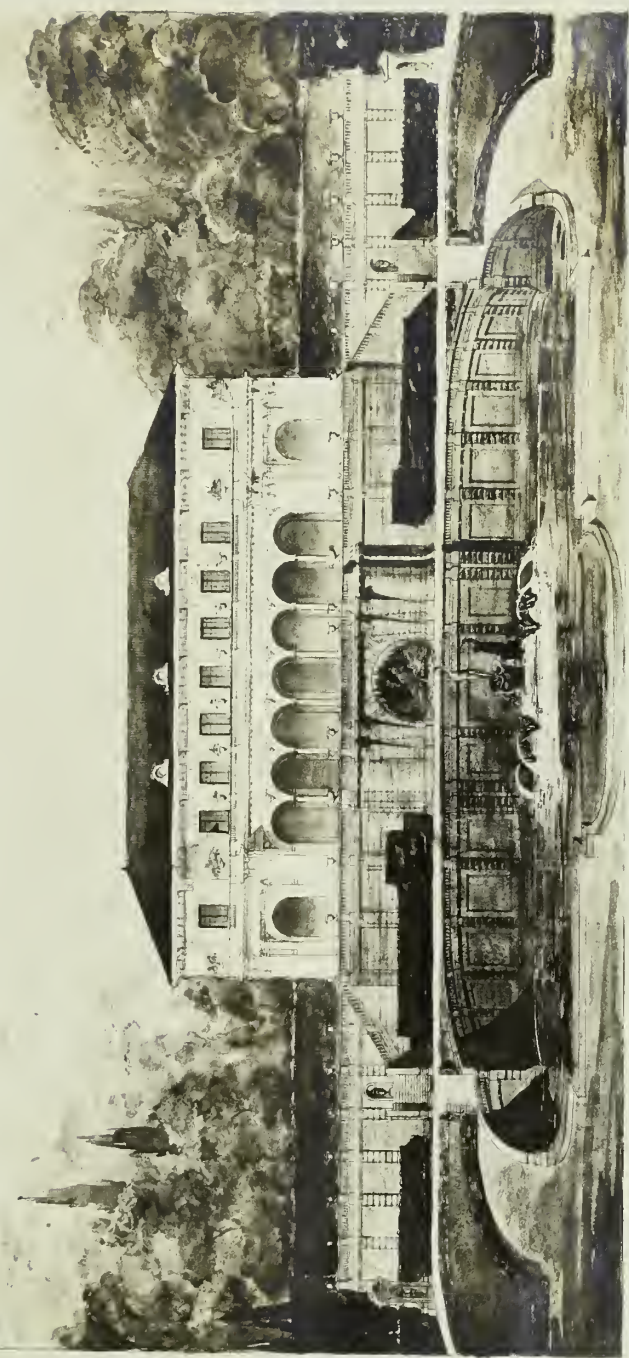
As this pavilion is essentially a summer house, and is designed for a warm climate, no heating or ventilating need be provided for.

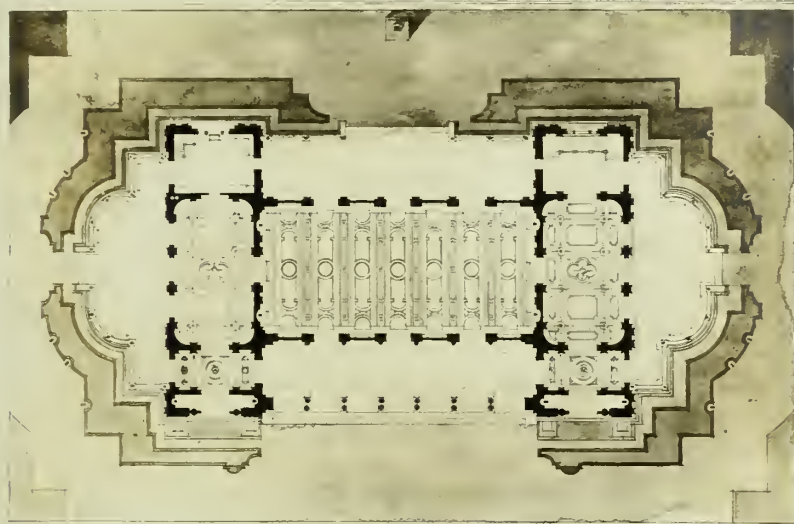
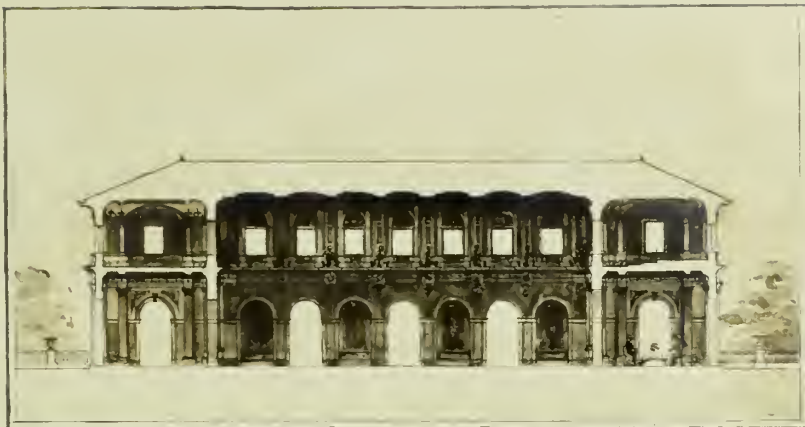


:: REFERENCES ::

The great gardens, with their cascades and fountains, and the effect of dense foliage, suggest the southern part of the United States as the most suitable location for such a building. The Italian Renaissance furnishes a multitude of examples of such casinos, and it was to these I turned for inspiration. The Villa Medici, and particularly the Boboli Gardens, showed excellent examples of such buildings, and the Villa Garzoni is another Italian villa, which is notable for a remarkably garden. The Chateau de Vaux le Vicomte, and the Chateau de Marly le Roi were two of the French estates which furnished ideas on the arrangement of magnificent gardens.

For a collection of large photographs of such gardens and villas, I am indebted to the two books on "The Gardens of Italy", by Charles Latham, and "The Art of Garden Design in Italy", by H. Inigo Triggs. For a general understanding of the problem, I have to thank my instructor in design, Prof. David Varon.









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